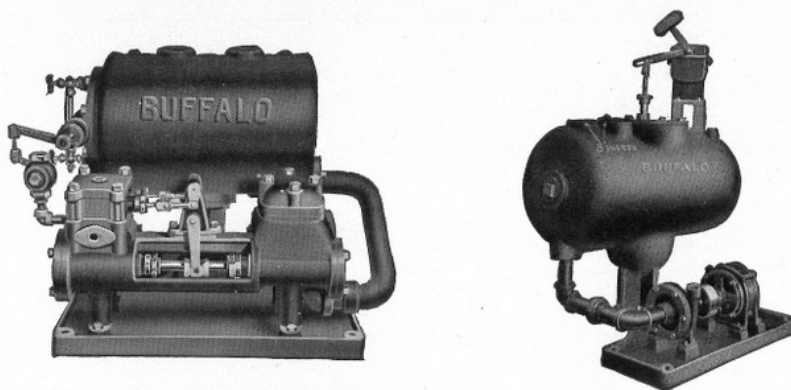


BUFFALO

Pumps and Receivers



Bulletin No. 960

Buffalo Steam Pump Co.
Buffalo, N. Y.

New York
Boston
Philadelphia
Pittsburgh
Charlotte, N. C.

Cleveland
Detroit
Chicago
St. Louis
Los Angeles

New Orleans
Atlanta
Minneapolis
Denver
Salt Lake City

Canadian Blower & Forge Co., Ltd.
Kitchener, Ont., Canada

Toronto

Montreal

Calgary

Vancouver

St. John.

Buffalo Automatic Duplex Steam Pumps and Receivers

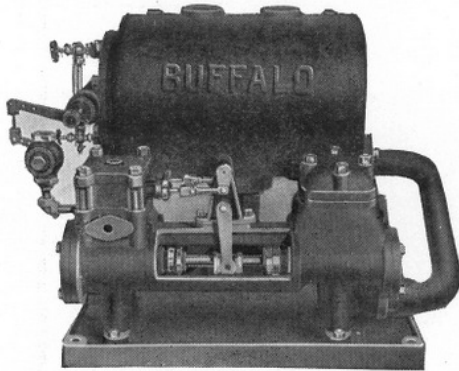


Fig. 712

Piston Packed: 150 lbs. Pressure

Use: Draining heating systems, steam coils, etc., and forcing water of condensation back into boilers against pressures up to 150 lbs.

Standard Fittings

Steam Cylinders: Cast iron integral with cradle, 150 lbs. working pressure.

Steam Valves: "D" slide valves.

Valve Gear: Duplex type, cast steel valve rod heads, rocker arms, links and levers.

Steam Pistons: Cast iron, snap rings.

Piston Rods: Steel.

Stuffing Boxes and Glands: Piston rod boxes, 10 inch stroke and smaller pumps, screwed type.

Water End: Cast iron, brass lined cylinders, suction and discharge valves above pistons.

Water Valves: Bronze disc type (rubber if ordered), bronze stems, brass springs.

Valve Seats: Bronze screwed into decks.

Water Pistons: Cast iron removable follower type.

Receiver Shell: Cast iron, strong enough for 50 lbs. pressure.

Governor Valve: Balanced lever type.

Float: Copper ball float.

Base and Standard: Cast iron. Pump and receiver on one base.

Wrenches: All necessary special wrenches.

Extras

Steam cylinder lagging; sight feed or mechanically operated lubricator; discharge air chamber.

Code Word with Steel Piston Rods and Iron Pistons.	Figure Number.	Diameter of Steam Cylinders, Inches.		Diameter of Water Cylinders, Inches.	Stroke, Inches.	Piston Speed, Feet per Minute.	Capacity, Gallons per Minute.	Square Feet of Radiat- ing Surface Apparatus will Drain.	Horse Power Boiler at 35 lbs. Evaporation that Pump will Feed at Slow Piston Speed.	Minimum lbs. Steam Pressure to Operate Pump against Equal Water Pressure.	Receiver.				Diameter of Pipes, Inches.				Approximate Floor Space, Inches.	
		Capacity, Gallons.	Diameter, Inches.	Length, Inches.	Number of Tapped Openings for Return.	Size of Tapped Openings, Inches	Steam	Exhaust	Suction	Discharge										
STANDARD TYPE																				
DCLPE	712*	3	2	3½	45	14	5000	70	50	12	14¾	20	1	2½	½	¾	1¼	1	24 x 30	
DCLTI	712*	4½	2¾	4	50	30	10000	150	40	20	16¾	24¾	2	2½	½	¾	2	1½	32 x 46	
DCLUV	712	5¼	3½	5	60	60	20000	250	35	30	19	30	3	2½	¾	1	2½	2	34 x 54	
DCLXO	712	6	4	6	65	78	40000	350	35	30	19	30	3	2½	1	1½	3	2	34 x 54	
DCLZB	712	7½	5	6	65	126	60000	550	30	40	19	38	3	2½	1½	2	4	3	40 x 65	
LOW STEAM PRESSURE TYPE																				
DCMCY	712*	3	1½	3½	45	8	3000	40	35	12	14¾	20	1	2½	½	¾	1¼	1	24 x 30	
DCMHA	712*	4½	2	4	50	16	6000	80	25	20	16¾	24¾	2	2½	½	¾	2	1½	32 x 46	
DCMLE	712	6	2	6	65	21	9000	105	10	30	19	30	3	2½	1	1½	3	2	34 x 54	
DCMOV	712*	7½	2½	6	65	33	15000	165	10	30	19	30	3	2½	1½	2	2½	2	38 x 56	

Add Code Word JCKAX for Bronze Piston Rods. (Use wherever hot water is to be handled.)

Add Code Word JCKDP for Brass Water Pistons.

*These sizes have water end cast integral with cradle. Other sizes have water end separate from cradle.

Buffalo Automatic Centrifugal Pumps and Receivers

Horizontal Type

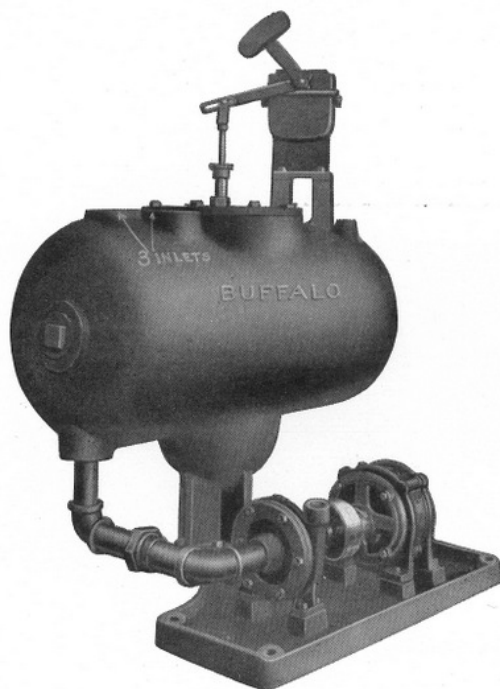


Fig. 1207

Use: Draining heating systems, steam coils, etc., and forcing water of condensation back into boilers. Widely used where boiler pressure is too low to permit the use of a steam pump and receiver.

Standard Fittings

Pump: Buffalo Single Suction Class "O", good for 100 feet pressure.

Casing and Suction Side Plate: Cast iron, machined to gauge, drilled to template. Close clearance with impeller, preventing leakage.

Suction: Open end single suction.

Impeller: Brass, single suction enclosed type. Open iron impeller can be furnished on special order.

Shaft: Steel, finished all over. Cannot be brass covered. Monel metal can be furnished on special order.

Shaft Bearings: Grease lubricated on 1½" and smaller pumps. Ring oiling on 2" and larger pumps. All bearings babbitted.

Thrust Bearing: Thrust collar.

Gland: Brass on 1½" and smaller pumps. Cast iron on 2" and larger pumps.

Subbase: Cast iron, ribbed and stiffened.

Coupling: Flanged. Flexible type cannot be furnished.

Fittings: Grease cups and air cocks.

Receiver Shell: Cast iron, strong enough for 50 lbs. pressure.

Float: Copper ball float.

Base and Standard: Cast iron. Pump, Receiver and Motor on same base.

Float Switch: Automatic. To suit electric current.

Finish: All outfits painted, filled and rubbed down. Bright parts exposed to weather protected by slushing compound.

For Higher Heads the Buffalo Double Suction "SA" Pump Can be Substituted for the Single Suction Class "O" Pump.

Code Word Without any Electrical Equip-ment.	Figure Number.	Type of Pump, Class.	Size of Pump, Inches.	Size of Discharge Pipe, Inches.	Receiver.		1150 Revolutions per Minute				1450 Revolution per Minute				1750 Revolutions per Minute				
							1150 Revolutions per Minute				1450 Revolution per Minute				1750 Revolutions per Minute				
					Capacity, Gallons.	Number of Tapped Openings for Returns	Size of Tapped Openings, Inches.	Total Maximum Head, Feet.	Pounds of Condensation, per Hour.	Square Feet of Radiation.	Size of Motor Required, Horse Power.	Total Maximum Head, Feet.	Pounds of Condensation, per Hour.	Square Feet of Radiation.	Size of Motor Required, Horse Power.	Total Maximum Head, Feet.	Pounds of Con-densation per Hour	Square Feet of Radiation.	Size of Motor Required, Horse Power.
DCBLJ	1207	O	1½	1½	40	3	2½	15	6500	13000	1	25	6500	13000	1	25	6500	13000	1
DCBIQ	1207	O	1½	1½	40	3	2½	20	8500	17000	1½	35	8500	17000	1½	50	8500	17000	1½
DCBIY	1207	O	2	2	40	3	2½	30	8000	16000	1½	50	10000	20000	1½	50	10000	20000	1½
DCBIZ	1207	O	2	2	40	3	2½	30	14000	28000	2	50	14000	28000	2	50	14000	28000	2
DCCAB	1207*	S	1	1	40	3	2½	35	3000	6000	1	50	3500	7000	1	50	3500	7000	1
DCCAL	1207*	S	1	1	40	3	2½	40	5000	10000	1½	70	5000	10000	2	80	5000	10000	3
DCCAR	1207*	SA	1½	1½	40	3	2½	40	7500	15000	2	70	7500	15000	3	100	7500	15000	5
DCCAW	1207*	SA	1½	1½	40	3	2½	60	10000	20000	3	80	10000	20000	5	100	10000	20000	5

*Double Suction Class "S" pump used instead of Single Suction Class "O".
Pounds of Condensation per hour is based on pump operating 20 minutes per hour.
Square Feet of Radiation is based on Direct Radiation, or ½ lb. of condensation per square foot per hour. Indirect radiation as in fan systems will run 2½ to 5 times as much.
In figuring total head allow 5 lbs. margin for forcing water into boiler.
See page 4 for the type of Float Switch to use, depending on current.

Buffalo Automatic Centrifugal Pumps and Receivers

Vertical Type

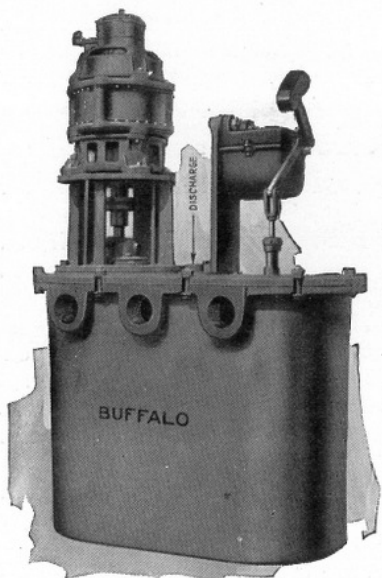


Fig. 1208

Use: Draining heating systems, steam coils, etc., and forcing water of condensation back into boilers. Where a pit has to be dug to admit gravity drainage, this style will be found very practical.

Standard Fittings

Pump: Buffalo Vertical Single Suction Class "O" good for 100 ft. pressure.

Casing and Suction Side Plate: Cast iron, machined to gauge, drilled to template. Close clearance with impeller, preventing leakage.

Impeller: Brass, single suction enclosed type. Open iron impeller can be furnished on special order.

Shaft: Steel, finished all over. Cannot be brass covered. Monel metal can be furnished on special order.

Thrust Bearing: Vertical ball bearing type, lubricated from sight feed oil cup.

Coupling: Flexible type.

Receiver: Cast iron, strong enough for 50 lbs. pressure.

Float: Copper ball float.

Stuffing Box and Gland: In cover plate, around shaft, to prevent any steam or gases escaping into room.

Discharge Pipe: Furnished up to cover plate.

Motor Tripod: Cast iron.

Float Switch: Automatic. To suit electric current.

Finish: All outfits painted, filled and rubbed down. Bright parts exposed to weather protected by slushing compound.

Code Word Without Any Electrical Equipment.	Figure Number.	Size of Pump, Inches.	Size of Discharge Pipe, Inches.	Receiver.			1450 Revolutions per Minute.				1750 Revolutions per Minute.			
				Capacity, Gallons.	Number of Tapped Openings For Returns.	Size of Tapped Openings, Inches.	Total Maximum Head, Feet.	Pounds of Condensation per Hour.	Square Feet of Radiation.	Size of Motor Required, Horse Power.	Total Maximum Head, Feet.	Pounds of Condensation per Hour.	Square Feet of Radiation.	Size of Motor required Horse Power.
DBEKA	1208	1	1	40	3	2½	15	4000	8000	1	25	4000	8000	1
DBCNE	1208	1½	1½	40	3	2½	35	6500	13000	1	50	6500	13000	1
DBCNR	1208	1½	1½	40	3	2½	35	8500	17000	1½	50	8500	17000	1½

Pounds of Condensation per Hour is based on pump operating 20 minutes per hour.

Square Feet of Radiation is based on Direct Radiation, or ½ lb. of condensation per square foot per hour. Indirect radiation as in fan systems will run 2½ to 5 times as much.

In figuring total head allow 5 lbs. margin for forcing water into boiler.

FLOAT SWITCH TO BE USED

Direct Current=2 pole Float Switch, and Automatic Starter.

Alternating Current, 1 phase=2 pole Float Switch.

Alternating Current, 3 phase or 2 phase 3 wire=3 pole Float Switch.

Alternating Current, 2 phase 4 wire=4 pole Float Switch.

With small alternating current motors which can be thrown directly on the line, automatic starters are not required.

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NOTE: ORIGINAL DOCUMENT HAD WATER DAMAGE